FCC Test Report

FCC ID	:	**2AGBW9290022230X**
Equipment	:	**Digital device**
Brand Name	:	**PHILIPS**
Model Name	:	**9290022230**
Applicant	:	**Signify (China) Investment Co., Ltd. Building 9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233 China**
Manufacturer	:	**Signify (China) Investment Co., Ltd. Building 9, Lane 888, Tianlin Road, Minhang District, Shanghai 200233 China**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on May 08, 2019, and testing was started from May 17, 2019 and completed on May 24, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR950110AZ	01	Initial issue of report	Jul. 11, 2019

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	FCC 15.203
3.1	15.207	AC Power-line Conducted Emissions	PASS	FCC 15.207
3.2	15.247(a)	DTS Bandwidth	PASS	≥500kHz
3.3	15.247(b)	Maximum Conducted Output Power	PASS	Power [dBm]:30
3.4	15.247(e)	Power Spectral Density	PASS	PSD [dBm/3kHz]:8
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	Non-Restricted Bands: > 30 dBc
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	Restricted Bands: FCC 15.209

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Ben Tseng

Report Producer: Debby Hung

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std.	Ch. Frequency (MHz)	Channel Number
2400-2483.5	802.15.4	2405-2480	11-26 [16]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	Zigbee	5	1TX

Note:.
- Zigbee uses a O-QPSK (250kbps) modulation for DSSS.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	INPAQ	WAG-M-LA-00-048	Metal Antenna	I-PEX	-1.89

For Zigbee function:

For Zigbee mode (1TX/1RX)

Ant. 1 could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From DC Power Supply			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Type of EUT				
☒	Stand-alone			
☐	Combined (EUT where the radio part is fully integrated within another device)			
	Combined Equipment - Brand Name / Model No.:	…		
☐	Plug-in radio (EUT intended for a variety of host systems)			
	Host System - Brand Name / Model No.:	…		
☐	Other:			

1.1.4 Mode Test Duty Cycle

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
Zigbee	1	0	n/a (DC>=0.98)	n/a (DC>=0.98)

Note. If DC < 0.98, the DCF was added while measuring Output power and PSD.

1.2 Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR FCC Part 15
- ANSI C63.10-2013
- KDB 558074 D01 v05r02

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Jeff	23.1~25.1°C / 54.1~56.3%	22/May/2019
RF Conducted	TH01-HY	Andy	22.1~24.7°C / 60.8~64%	17/May/2019~24/May/2019
Radiated	03CH09-HY	Andy	21.8~22.6°C / 51~56%	21/May/2019

1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.54 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	1.6 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	4.3 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.3 dB	Confidence levels of 95%
Temperature	0.7 °C	Confidence levels of 95%
Humidity	4 %	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

RF Conducted	Abbreviation	Remark
TnomVnom	Tnom	20°C
-	Vnom	2.8V

2.2 Test Channel Mode

Test Software	Dos

Mode	PowerSetting
Zigbee	-
2405MHz	60
2440MHz	60
2480MHz	60

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	DC Power Supply mode

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	DC Power Supply mode		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT			V

2.4 Accessories and Support Equipment

Accessories				
Wall pate (Round)	Brand Name	-	Model Name	-
Wall pate (Square)	Brand Name	-	Model Name	-
Wall pate (Rectangle)	Brand Name	-	Model Name	-

Reminder: Regarding to more detail and other information, please refer to user manual.

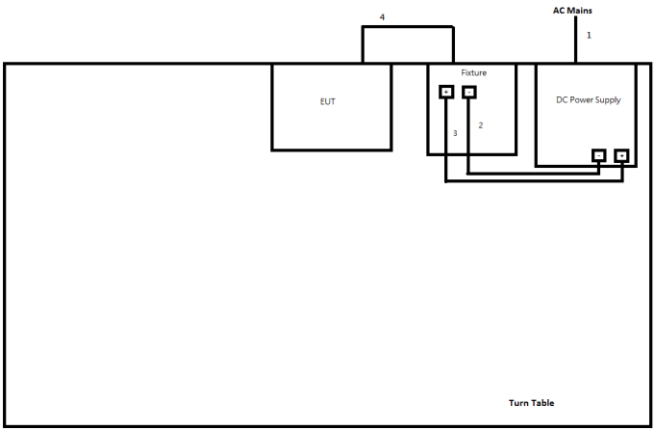
Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC Power Supply	GW	GPS-3030DD	DoC

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	R33002 / DOC
2	Adapter for NB	DELL	HA65NM130	R35737 / DOC
3	DC Power Supply	GW	GPS-3030DD	-

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	DC Power Supply	GW	GPS-3030DD	DoC

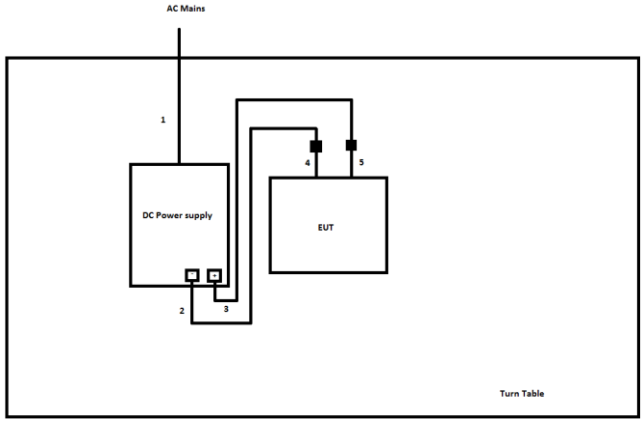
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	2.0	-
2	DC Power line	No	0.15	-
3	DC Power line	No	0.15	-
4	Fixture Cable	No	2.15	-

Test Setup Diagram - Radiated Test



Item	Connection	Shielded	Length(m)	Remark
1	AC Power line	No	1.8	-
2	DC Power line	No	1.0	-
3	DC Power line	No	1.0	-
4	DC Power line	No	0.2	-
5	DC Power line	No	0.2	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

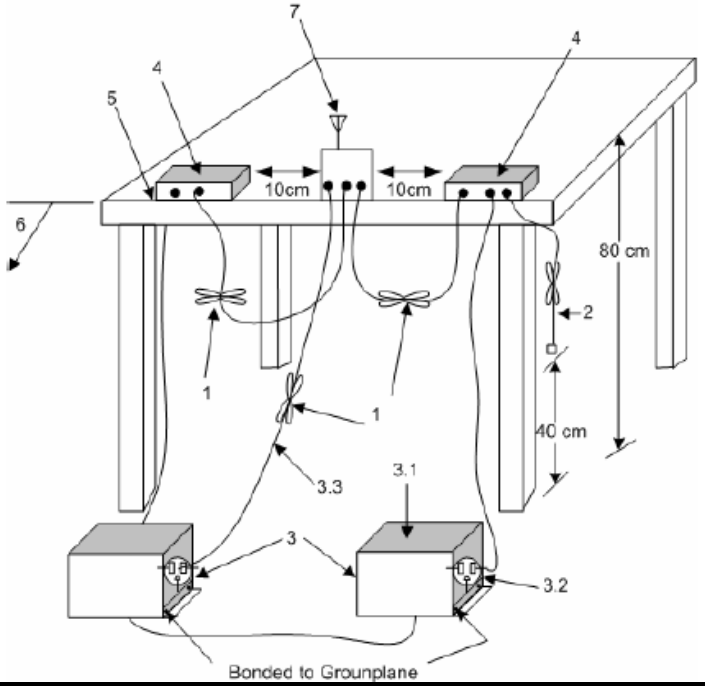
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup

AC Power-line Conducted Emissions



3.1.5 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth ≥ 500 kHz.

3.2.2 Measuring Instruments

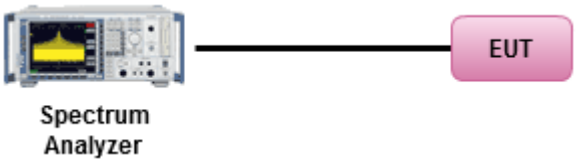
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074, clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit			
	▪ If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 30 dBm (1 W)		
	▪ Point-to-multipoint systems (P2M): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6) dBm		
	▪ Point-to-point systems (P2P): If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm		
	▪ Smart antenna system (SAS):		
		- Single beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm	
		- Overlap beam: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 dBm	
		- Aggregate power on all beams: If G_{TX} > 6 dBi, then P_{Out} = 30 – (G_{TX} – 6)/3 + 8dB dBm	
e.i.r.p. Power Limit:			
▪ 2400-2483.5 MHz Band			
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)		
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm		
	▪ Smart antenna system (SAS)		
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm	
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm	
		- Aggregate power on all beams: P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX} + 8]) dBm	
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.			

3.3.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	☐ Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	☐ Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
▪ Maximum Average Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	☒ Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

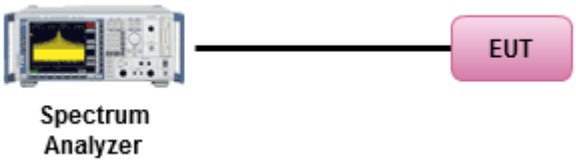
3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak PSD level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average PSD level.	

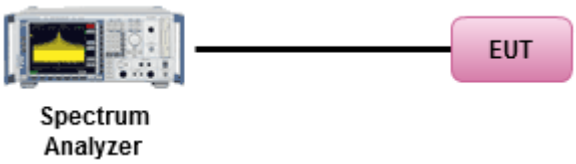
3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

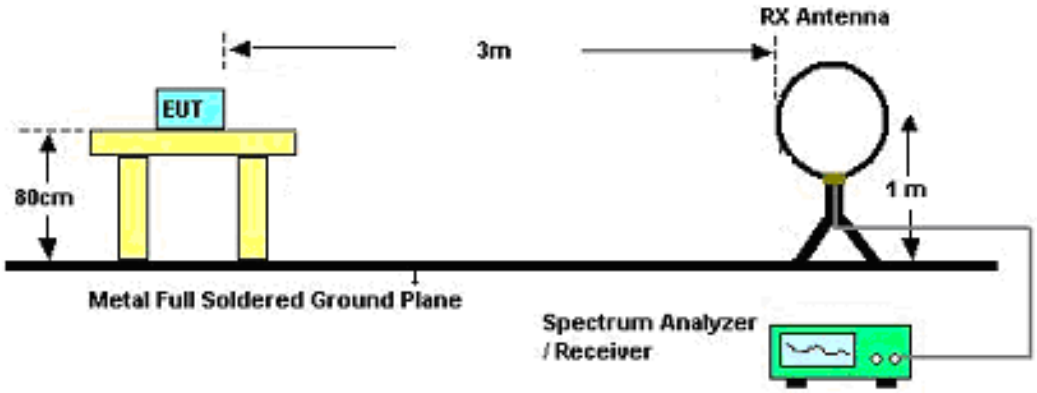
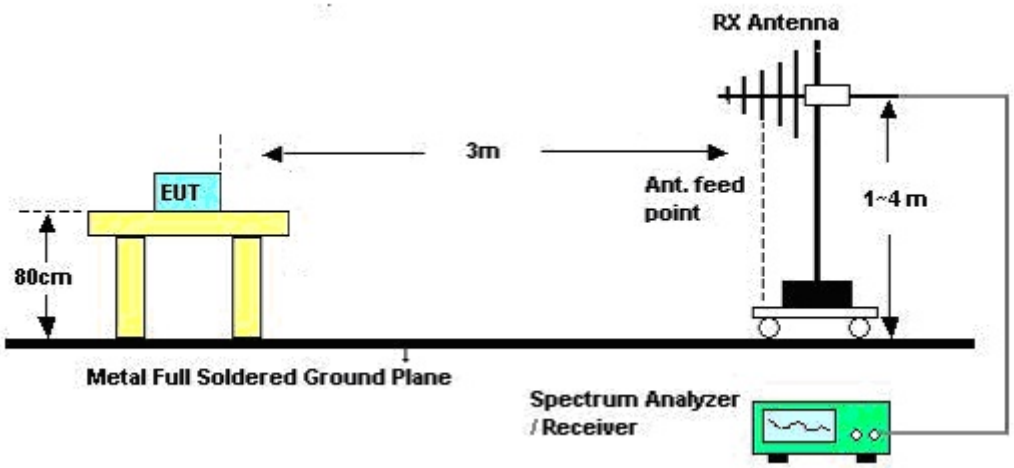
3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

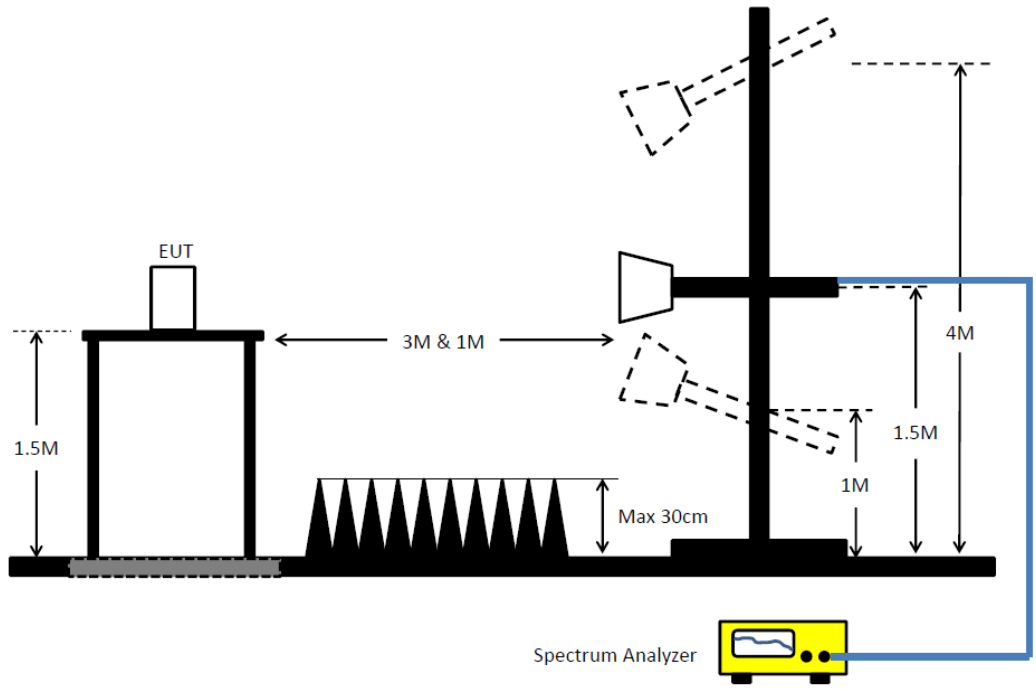
3.6.3 Test Procedures

Test Method
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.
▪ For the transmitter unwanted emissions shall be measured using following options below:
▪ Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪ For the transmitter band-edge emissions shall be measured using following options below:
▪ Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
▪ Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
▪ Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).
▪ Use the following spectrum analyzer settings:
▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.

3.6.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	08/Nov/2018	07/Nov/2019
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Puls e Limiter	SCHWARZBEC K	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	12/Oct/2018	11/Oct/2019

NCR : Non-Calibration Require

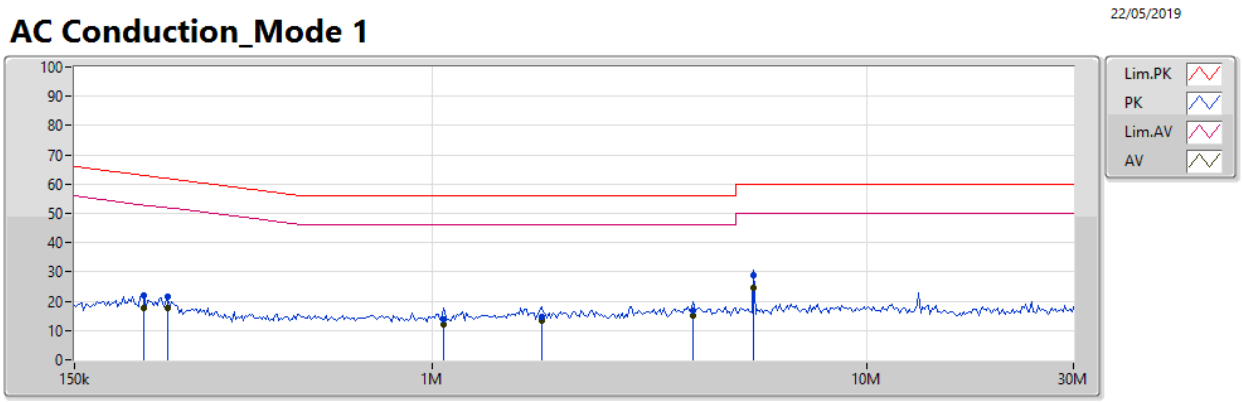
Instrument for Conducted Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test

Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	30/Mar/2019	29/Mar/2020
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz ~ 18GHz	30/Mar/2019	29/Mar/2020
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz ~ 26.5GHz	03/Jul/2018	02/Jul/2019
Microwave Preamplifier with 10 dB Pad	EMC	EMC051845 & WK0602-10	980240 & 01	1GHz ~ 18GHz	11/Jan/2019	10/Jan/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	02/Oct/2018	03/Oct/2019
Double ridged Guide Horn Antenna	COM-POWER	AH-118	10094	1GHz~18GHz	13/Jul/2018	12/Jul/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020
LF-CABLE-2019 0218	Jye Bao	RG142	CB028	9kHz ~ 1GHz	18/Feb/2019	17/Feb/2020
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627	1GHz ~ 40GHz	14/Mar/2019	13/Mar/2020

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	DC Power supply mode		

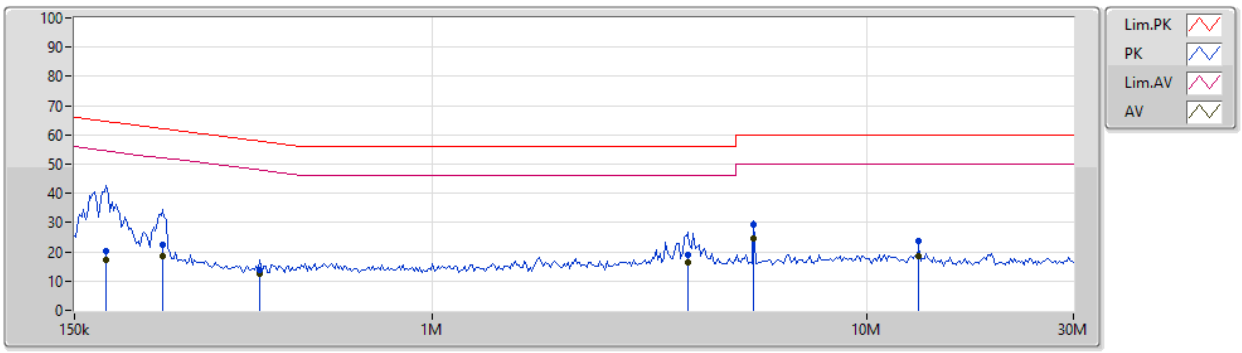


Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	216.761k	21.96	62.94	-40.98	19.47	Neutral	-	2.49	9.59	0.01	9.87
AV	216.761k	17.54	52.94	-35.40	19.47	Neutral	-	-1.93	9.59	0.01	9.87
QP	246.695k	21.50	61.87	-40.37	19.47	Neutral	-	2.03	9.59	0.01	9.87
AV	246.695k	17.53	51.87	-34.34	19.47	Neutral	-	-1.94	9.59	0.01	9.87
QP	1.065M	13.79	56.00	-42.21	19.49	Neutral	-	-5.70	9.59	0.02	9.88
AV	1.065M	12.27	46.00	-33.73	19.49	Neutral	-	-7.22	9.59	0.02	9.88
QP	1.787M	14.81	56.00	-41.19	19.53	Neutral	-	-4.72	9.61	0.03	9.89
AV	1.787M	13.31	46.00	-32.69	19.53	Neutral	-	-6.22	9.61	0.03	9.89
QP	4.001M	16.98	56.00	-39.02	19.55	Neutral	-	-2.57	9.61	0.05	9.89
AV	4.001M	15.10	46.00	-30.90	19.55	Neutral	-	-4.45	9.61	0.05	9.89
QP	5.501M	28.99	60.00	-31.01	19.57	Neutral	-	9.42	9.63	0.05	9.89
AV	5.501M	24.42	50.00	-25.58	19.57	Neutral	-	4.85	9.63	0.05	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	DC Power supply mode		

AC Conduction_Mode 1

22/05/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	177.646k	20.31	64.59	-44.28	19.48	Line	-	0.83	9.60	0.01	9.87
AV	177.646k	17.33	54.59	-37.26	19.48	Line	-	-2.15	9.60	0.01	9.87
QP	239.44k	22.45	62.12	-39.67	19.48	Line	-	2.97	9.60	0.01	9.87
AV	239.44k	18.57	52.12	-33.55	19.48	Line	-	-0.91	9.60	0.01	9.87
QP	401.705k	14.00	57.82	-43.82	19.48	Line	-	-5.48	9.59	0.01	9.88
AV	401.705k	12.62	47.82	-35.20	19.48	Line	-	-6.86	9.59	0.01	9.88
QP	3.883M	18.89	56.00	-37.11	19.57	Line	-	-0.68	9.63	0.05	9.89
AV	3.883M	16.46	46.00	-29.54	19.57	Line	-	-3.11	9.63	0.05	9.89
QP	5.501M	29.15	60.00	-30.85	19.58	Line	-	9.57	9.64	0.05	9.89
AV	5.501M	24.78	50.00	-25.22	19.58	Line	-	5.20	9.64	0.05	9.89
QP	13.204M	23.84	60.00	-36.16	19.63	Line	-	4.21	9.65	0.08	9.90
AV	13.204M	18.48	50.00	-31.52	19.63	Line	-	-1.15	9.65	0.08	9.90

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
Zigbee	1.663M	2.236M	2M24G1D	1.65M	2.23M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

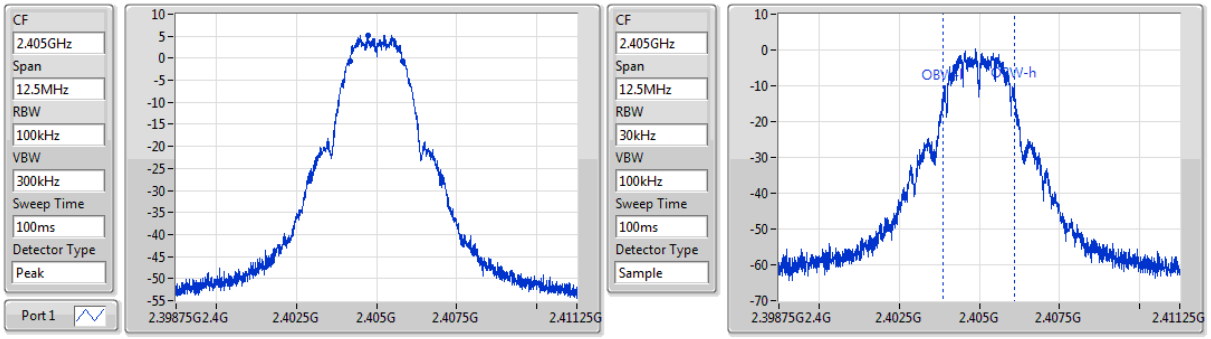
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
Zigbee	-	-	-	-
2405MHz_TnomVnom	Pass	500k	1.663M	2.23M
2440MHz_TnomVnom	Pass	500k	1.656M	2.236M
2480MHz_TnomVnom	Pass	500k	1.65M	2.23M

Port X-N dB = Port **X** 6dB down bandwidth; **Port X-OBW** = Port **X** 99% occupied bandwidth;

Zigbee **EBW**

2405MHz

20/05/2019

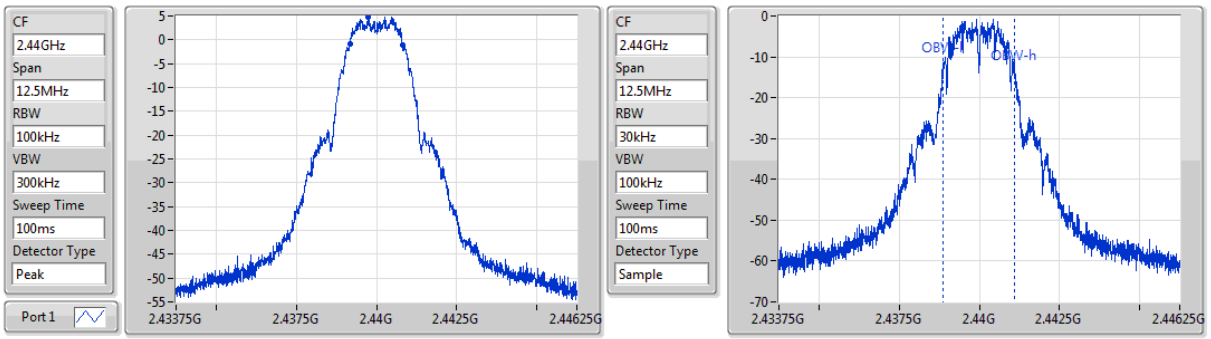


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.663M	2.404169G	2.405831G	2.23M	2.403869G	2.406099G	500k	1

Zigbee **EBW**

2440MHz

20/05/2019

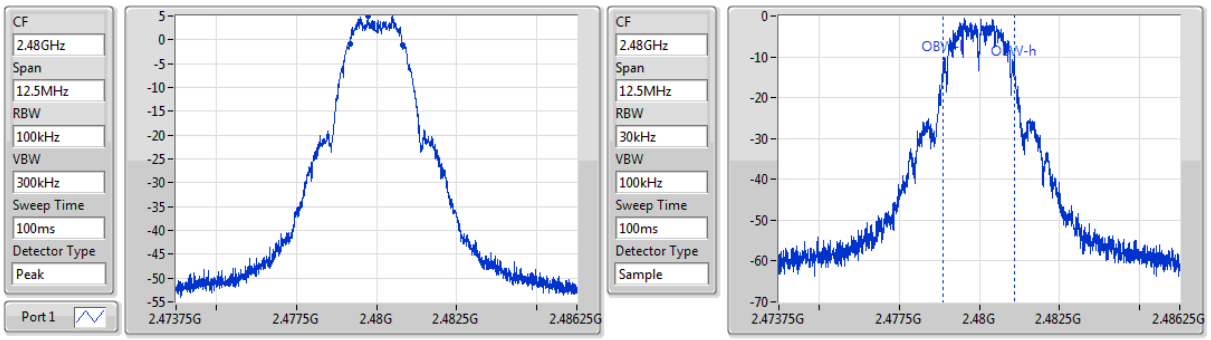


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.656M	2.439169G	2.440825G	2.236M	2.438869G	2.441106G	500k	1

Zigbee **EBW**

2480MHz

20/05/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
1.65M	2.479169G	2.480819G	2.23M	2.478869G	2.481099G	500k	1

Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
Zigbee	9.02	0.00798

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
Zigbee	-	-	-	-	-
2405MHz_TnomVnom	Pass	-1.89	9.02	9.02	30.00
2440MHz_TnomVnom	Pass	-1.89	8.59	8.59	30.00
2480MHz_TnomVnom	Pass	-1.89	8.71	8.71	30.00

DG = Directional Gain; **Port X** = Port X output power
Note : Conducted average output power is for reference only

Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
Zigbee	-7.23

RBW=3kHz.

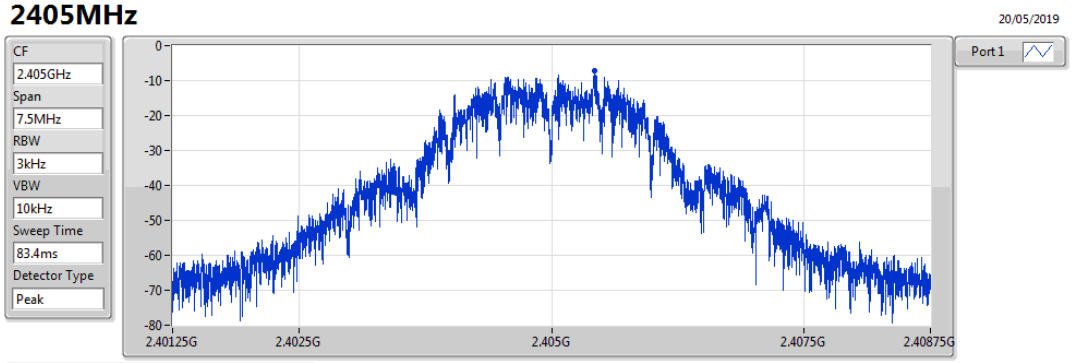
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
Zigbee	-	-	-	-	-
2405MHz_TnomVnom	Pass	-1.89	-7.23	-7.23	8.00
2440MHz_TnomVnom	Pass	-1.89	-8.40	-8.40	8.00
2480MHz_TnomVnom	Pass	-1.89	-7.46	-7.46	8.00

DG = Directional Gain; RBW=3kHz;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

Zigbee **PSD**

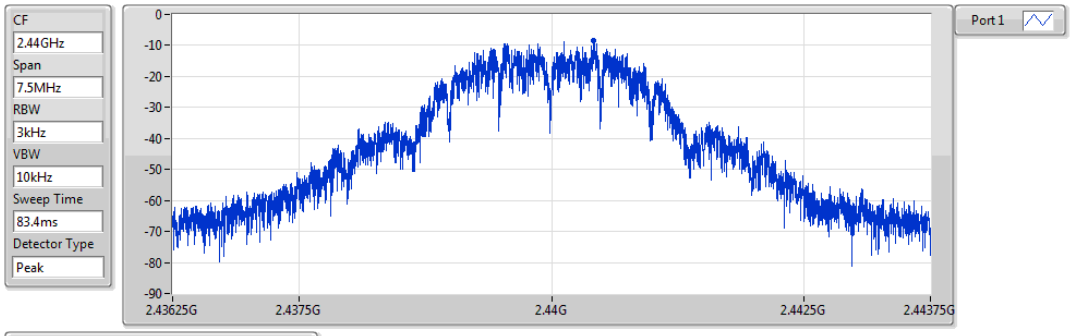
2405MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.23	-7.23	-7.23

Zigbee **PSD**

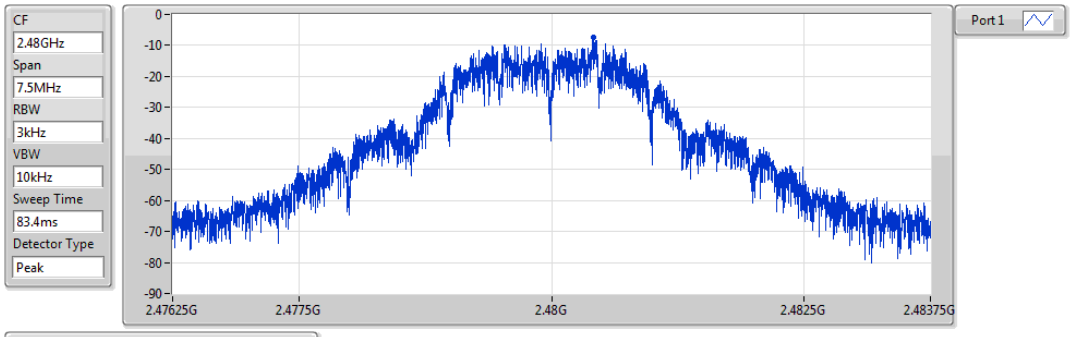
2440MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.40	-8.40	-8.40

Zigbee **PSD**

2480MHz



Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.46	-7.46	-7.46

Summary

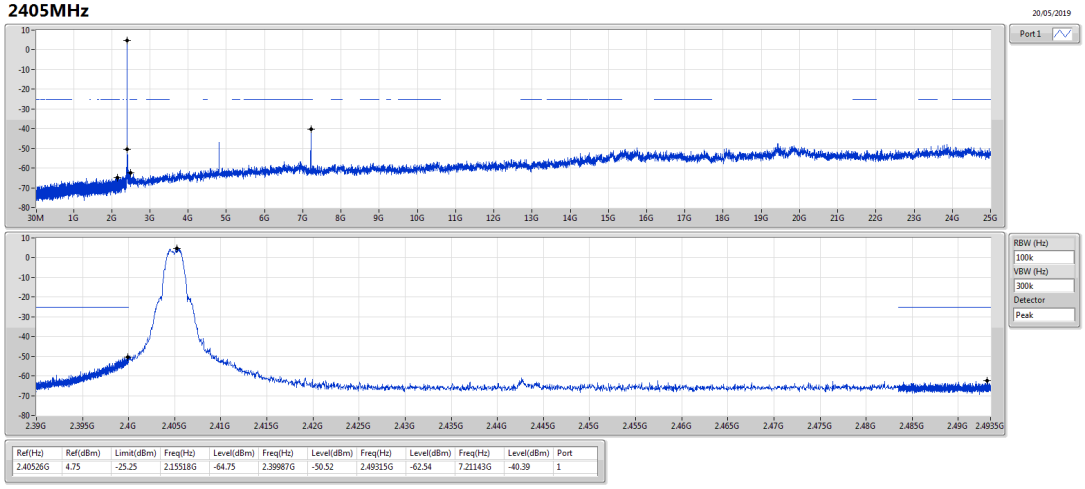
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
Zigbee	Pass	2.40526G	4.75	-25.25	2.15518G	-64.75	2.39987G	-50.52	2.49315G	-62.54	7.21143G	-40.39	1

Result

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
Zigbee	-	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz_TnomVnom	Pass	2.40526G	4.75	-25.25	2.15518G	-64.75	2.39987G	-50.52	2.49315G	-62.54	7.21143G	-40.39	1
2440MHz_TnomVnom	Pass	2.40526G	4.75	-25.25	2.18085G	-64.70	2.39415G	-63.47	2.49101G	-62.25	24.83401G	-48.22	1
2480MHz_TnomVnom	Pass	2.40526G	4.75	-25.25	2.0068G	-64.64	2.39133G	-62.88	2.48355G	-46.05	24.53299G	-49.02	1

Zigbee **CSE NdB**

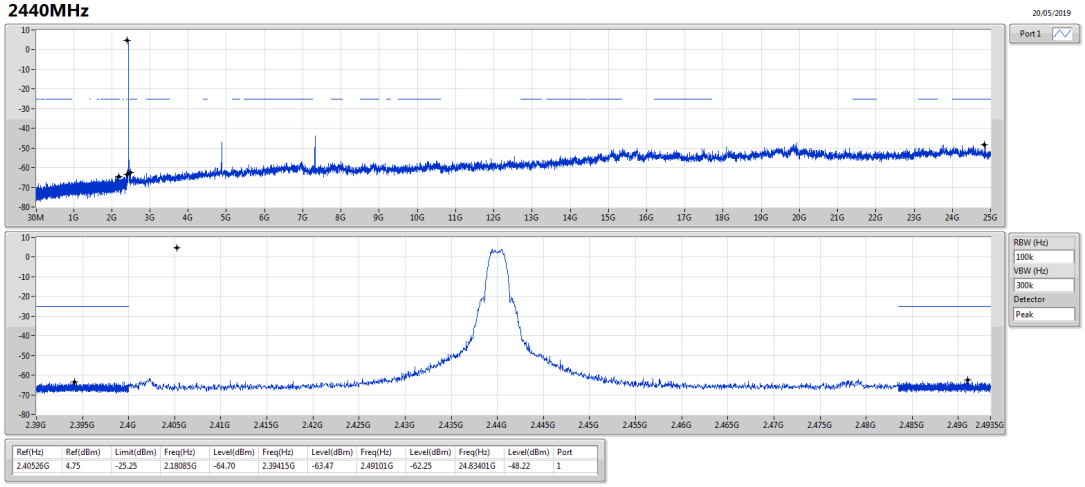
2405MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40526G	4.75	-25.25	2.15518G	-64.75	2.39987G	-50.52	2.49315G	-62.54	7.21143G	-40.39	1

Zigbee **CSE NdB**

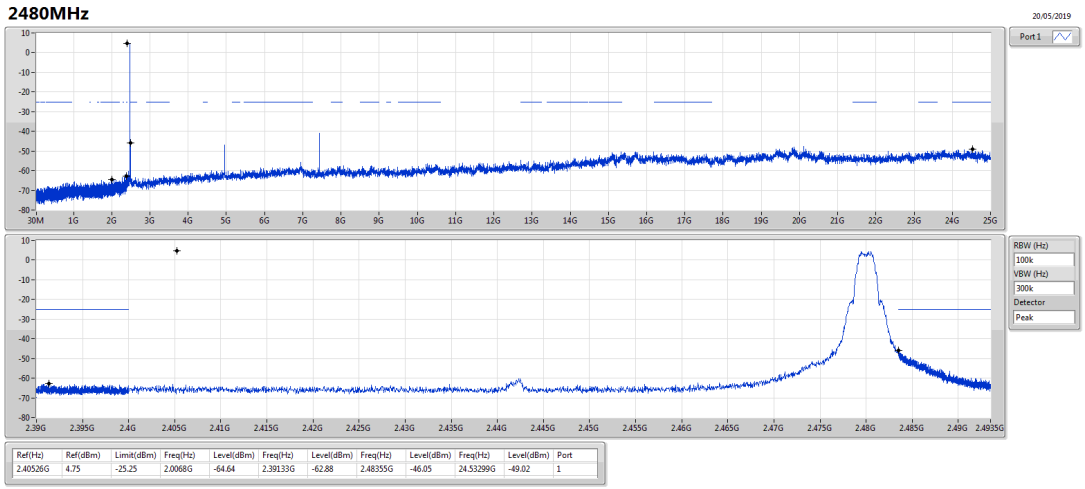
2440MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40526G	4.75	-25.25	2.18085G	-64.70	2.39415G	-63.47	2.49101G	-62.25	24.83401G	-48.22	1

Zigbee **CSE NdB**

2480MHz



Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.40526G	4.75	-25.25	2.0068G	-64.64	2.39133G	-62.88	2.48355G	-46.05	24.53299G	-49.02	1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
Zigbee_Nss1_1TX	Pass	PK	289.96M	37.46	46.00	-8.54	-16.86	3	Horizontal	360	1.00	-

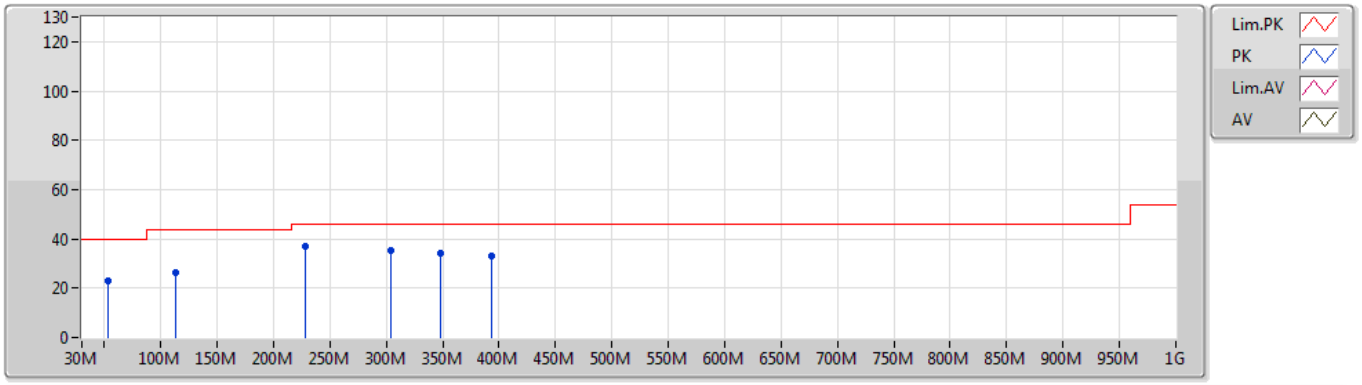
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Zigbee_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2440MHz	Pass	PK	53.28M	23.19	40.00	-16.81	-24.39	3	Vertical	0	1.00	-
2440MHz	Pass	PK	113.42M	26.47	43.50	-17.03	-19.52	3	Vertical	0	1.00	-
2440MHz	Pass	PK	227.88M	36.77	46.00	-9.23	-19.99	3	Vertical	0	1.00	-
2440MHz	Pass	PK	303.54M	35.32	46.00	-10.68	-16.60	3	Vertical	0	1.00	-
2440MHz	Pass	PK	348.16M	34.16	46.00	-11.84	-15.45	3	Vertical	0	1.00	-
2440MHz	Pass	PK	392.78M	32.93	46.00	-13.07	-14.14	3	Vertical	0	1.00	-
2440MHz	Pass	PK	167.74M	29.42	43.50	-14.08	-20.43	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	218.18M	34.40	46.00	-11.60	-20.89	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	289.96M	37.46	46.00	-8.54	-16.86	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	305.48M	32.35	46.00	-13.65	-16.58	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	340.4M	33.23	46.00	-12.77	-15.65	3	Horizontal	360	1.00	-
2440MHz	Pass	PK	555.74M	28.73	46.00	-17.27	-10.25	3	Horizontal	360	1.00	-

Zigbee_Nss1_1TX

21/05/2019

2440MHz_DC Power Supply

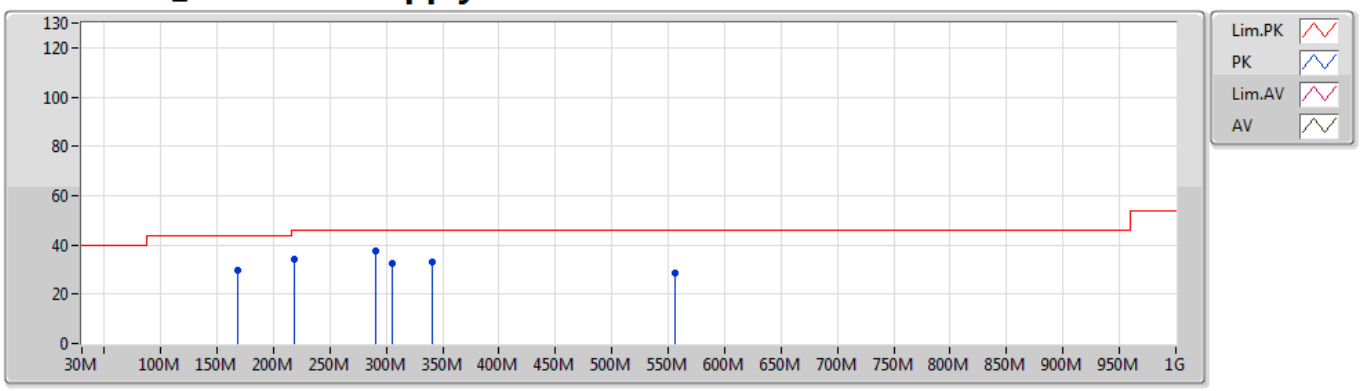


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	53.28M	23.19	40.00	-16.81	-24.39	3	Vertical	0	1.00	-
PK	113.42M	26.47	43.50	-17.03	-19.52	3	Vertical	0	1.00	-
PK	227.88M	36.77	46.00	-9.23	-19.99	3	Vertical	0	1.00	-
PK	303.54M	35.32	46.00	-10.68	-16.60	3	Vertical	0	1.00	-
PK	348.16M	34.16	46.00	-11.84	-15.45	3	Vertical	0	1.00	-
PK	392.78M	32.93	46.00	-13.07	-14.14	3	Vertical	0	1.00	-

Zigbee_Nss1_1TX

21/05/2019

2440MHz_DC Power Supply



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
PK	167.74M	29.42	43.50	-14.08	-20.43	3	Horizontal	360	1.00	-
PK	218.18M	34.40	46.00	-11.60	-20.89	3	Horizontal	360	1.00	-
PK	289.96M	37.46	46.00	-8.54	-16.86	3	Horizontal	360	1.00	-
PK	305.48M	32.35	46.00	-13.65	-16.58	3	Horizontal	360	1.00	-
PK	340.4M	33.23	46.00	-12.77	-15.65	3	Horizontal	360	1.00	-
PK	555.74M	28.73	46.00	-17.27	-10.25	3	Horizontal	360	1.00	-

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-
Zigbee_Nss1_1TX	Pass	AV	2.4836G	43.51	54.00	-10.49	32.19	3	Horizontal	312	2.86	-

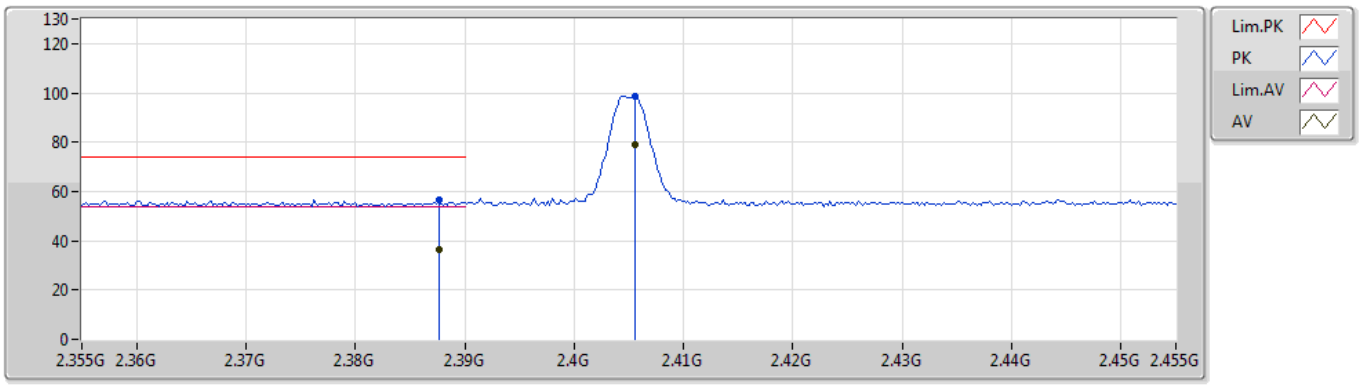
Result

Mode	Result	Type	Freq (Hz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Factor (dB)	Dist (m)	Condition	Azimuth (°)	Height (m)	Comments
Zigbee_Nss1_1TX	-	-	-	-	-	-	-	-	-	-	-	-
2405MHz	Pass	AV	2.3876G	36.51	54.00	-17.49	31.85	3	Vertical	266	1.60	-
2405MHz	Pass	AV	2.4056G	78.83	Inf	-Inf	31.91	3	Vertical	266	1.60	-
2405MHz	Pass	PK	2.3876G	56.51	74.00	-17.49	31.85	3	Vertical	266	1.60	-
2405MHz	Pass	PK	2.4056G	98.83	Inf	-Inf	31.91	3	Vertical	266	1.60	-
2405MHz	Pass	AV	2.3804G	37.33	54.00	-16.67	31.82	3	Horizontal	311	2.71	-
2405MHz	Pass	AV	2.4056G	83.59	Inf	-Inf	31.91	3	Horizontal	311	2.71	-
2405MHz	Pass	PK	2.3804G	57.33	74.00	-16.67	31.82	3	Horizontal	311	2.71	-
2405MHz	Pass	PK	2.4056G	103.59	Inf	-Inf	31.91	3	Horizontal	311	2.71	-
2405MHz	Pass	AV	4.80931G	31.30	54.00	-22.70	3.46	3	Vertical	160	1.18	-
2405MHz	Pass	PK	4.80931G	51.30	74.00	-22.70	3.46	3	Vertical	160	1.18	-
2405MHz	Pass	AV	4.80773G	30.96	54.00	-23.04	3.44	3	Horizontal	59	1.92	-
2405MHz	Pass	PK	4.80773G	50.96	74.00	-23.04	3.44	3	Horizontal	59	1.92	-
2440MHz	Pass	AV	2.352G	36.02	54.00	-17.98	31.71	3	Vertical	269	1.41	-
2440MHz	Pass	AV	2.4396G	78.73	Inf	-Inf	32.04	3	Vertical	269	1.41	-
2440MHz	Pass	AV	2.4972G	36.32	54.00	-17.68	32.23	3	Vertical	269	1.41	-
2440MHz	Pass	PK	2.352G	56.02	74.00	-17.98	31.71	3	Vertical	269	1.41	-
2440MHz	Pass	PK	2.4396G	98.73	Inf	-Inf	32.04	3	Vertical	269	1.41	-
2440MHz	Pass	PK	2.4972G	56.32	74.00	-17.68	32.23	3	Vertical	269	1.41	-
2440MHz	Pass	AV	2.3564G	35.96	54.00	-18.04	31.74	3	Horizontal	309	2.97	-
2440MHz	Pass	AV	2.4396G	84.25	Inf	-Inf	32.04	3	Horizontal	309	2.97	-
2440MHz	Pass	AV	2.4868G	36.80	54.00	-17.20	32.20	3	Horizontal	309	2.97	-
2440MHz	Pass	PK	2.3564G	55.96	74.00	-18.04	31.74	3	Horizontal	309	2.97	-
2440MHz	Pass	PK	2.4396G	104.25	Inf	-Inf	32.04	3	Horizontal	309	2.97	-
2440MHz	Pass	PK	2.4868G	56.80	74.00	-17.20	32.20	3	Horizontal	309	2.97	-
2440MHz	Pass	AV	4.87967G	32.74	54.00	-21.26	3.62	3	Vertical	341	1.22	-
2440MHz	Pass	PK	4.87967G	52.74	74.00	-21.26	3.62	3	Vertical	341	1.22	-
2440MHz	Pass	AV	4.8779G	31.75	54.00	-22.25	3.62	3	Horizontal	175	1.63	-
2440MHz	Pass	PK	4.8779G	51.75	74.00	-22.25	3.62	3	Horizontal	175	1.63	-
2480MHz	Pass	AV	2.4806G	80.05	Inf	-Inf	32.17	3	Vertical	270	1.01	-
2480MHz	Pass	AV	2.4836G	41.38	54.00	-12.62	32.19	3	Vertical	270	1.01	-
2480MHz	Pass	PK	2.4806G	100.05	Inf	-Inf	32.17	3	Vertical	270	1.01	-
2480MHz	Pass	PK	2.4836G	61.38	74.00	-12.62	32.19	3	Vertical	270	1.01	-
2480MHz	Pass	AV	2.4794G	82.82	Inf	-Inf	32.17	3	Horizontal	312	2.86	-
2480MHz	Pass	AV	2.4836G	43.51	54.00	-10.49	32.19	3	Horizontal	312	2.86	-
2480MHz	Pass	PK	2.4794G	102.82	Inf	-Inf	32.17	3	Horizontal	312	2.86	-
2480MHz	Pass	PK	2.4836G	63.51	74.00	-10.49	32.19	3	Horizontal	312	2.86	-
2480MHz	Pass	AV	4.95882G	29.47	54.00	-24.53	3.82	3	Vertical	62	2.54	-
2480MHz	Pass	PK	4.95882G	49.47	74.00	-24.53	3.82	3	Vertical	62	2.54	-
2480MHz	Pass	AV	4.96091G	30.85	54.00	-23.15	3.83	3	Horizontal	294	2.63	-
2480MHz	Pass	PK	4.96091G	50.85	74.00	-23.15	3.83	3	Horizontal	294	2.63	-

Zigbee_Nss1_1TX

21/05/2019

2405MHz_TX

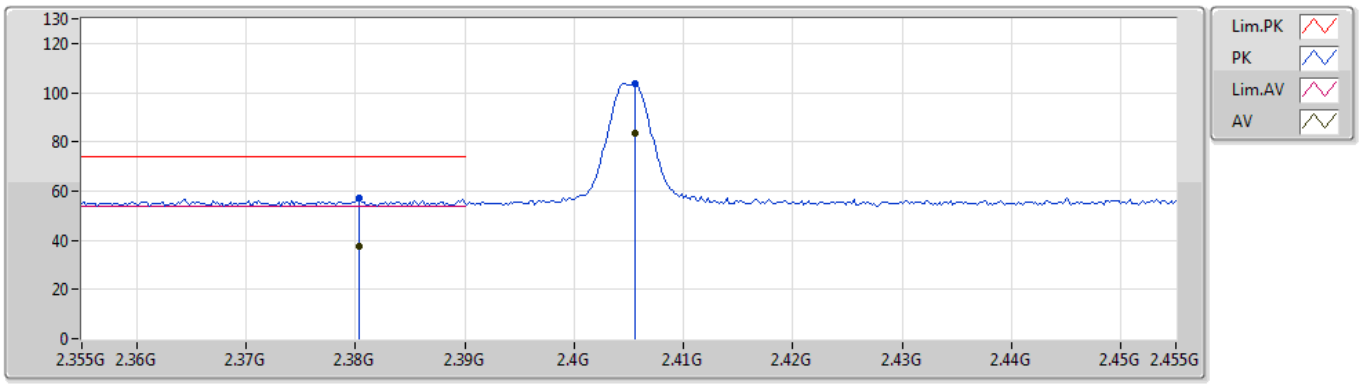


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3876G	36.51	54.00	-17.49	31.85	3	Vertical	266	1.60	-
AV	2.4056G	78.83	Inf	-Inf	31.91	3	Vertical	266	1.60	-
PK	2.3876G	56.51	74.00	-17.49	31.85	3	Vertical	266	1.60	-
PK	2.4056G	98.83	Inf	-Inf	31.91	3	Vertical	266	1.60	-

Zigbee_Nss1_1TX

21/05/2019

2405MHz_TX

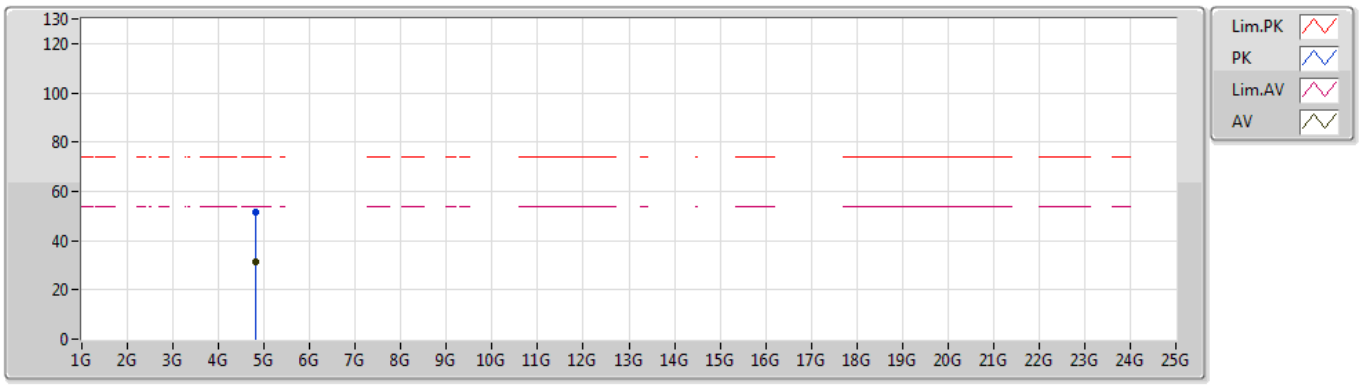


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3804G	37.33	54.00	-16.67	31.82	3	Horizontal	311	2.71	-
AV	2.4056G	83.59	Inf	-Inf	31.91	3	Horizontal	311	2.71	-
PK	2.3804G	57.33	74.00	-16.67	31.82	3	Horizontal	311	2.71	-
PK	2.4056G	103.59	Inf	-Inf	31.91	3	Horizontal	311	2.71	-

Zigbee_Nss1_1TX

21/05/2019

2405MHz_TX

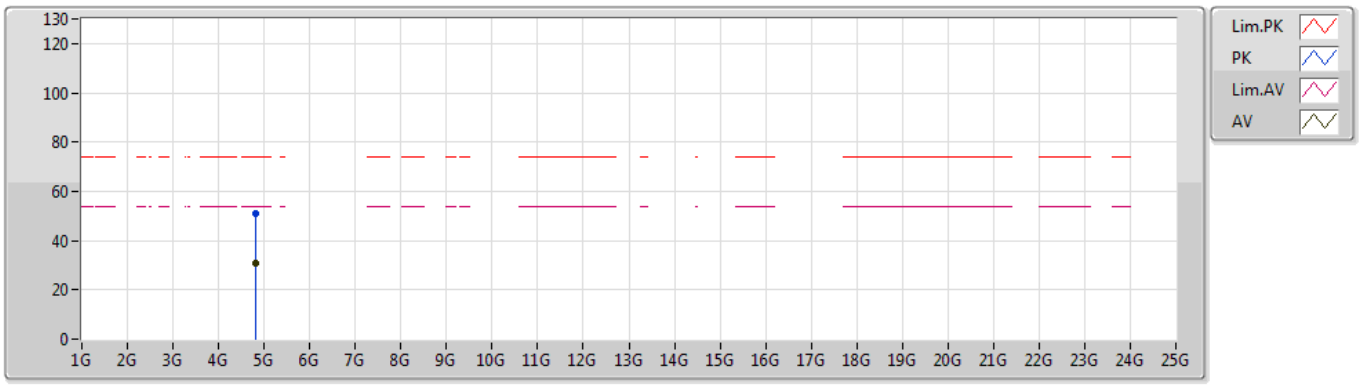


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80931G	31.30	54.00	-22.70	3.46	3	Vertical	160	1.18	-
PK	4.80931G	51.30	74.00	-22.70	3.46	3	Vertical	160	1.18	-

Zigbee_Nss1_1TX

21/05/2019

2405MHz_TX

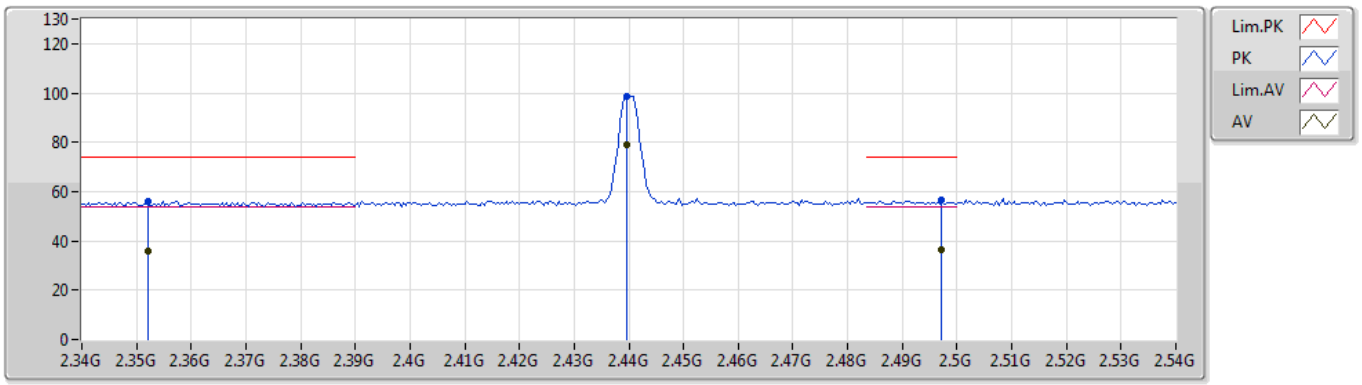


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.80773G	30.96	54.00	-23.04	3.44	3	Horizontal	59	1.92	-
PK	4.80773G	50.96	74.00	-23.04	3.44	3	Horizontal	59	1.92	-

Zigbee_Nss1_1TX

21/05/2019

2440MHz_TX

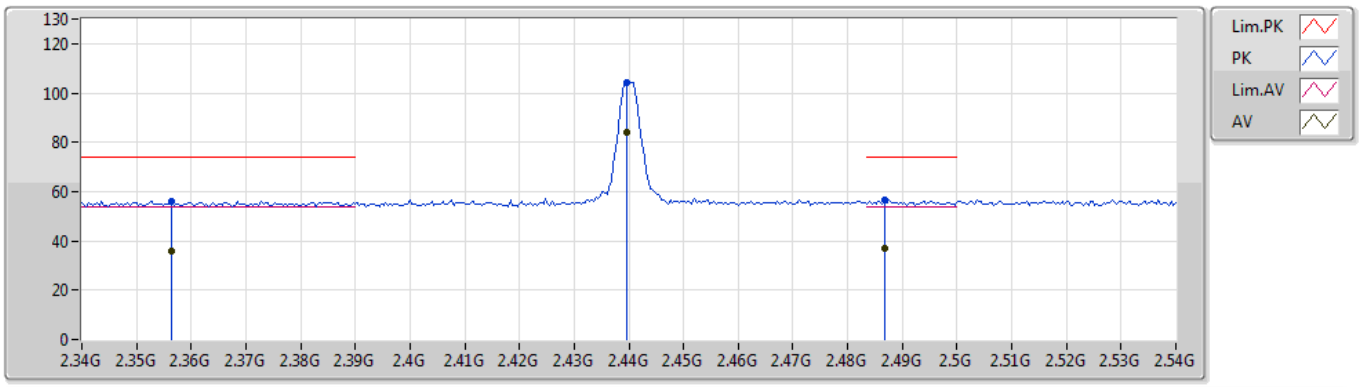


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.352G	36.02	54.00	-17.98	31.71	3	Vertical	269	1.41	-
AV	2.4396G	78.73	Inf	-Inf	32.04	3	Vertical	269	1.41	-
AV	2.4972G	36.32	54.00	-17.68	32.23	3	Vertical	269	1.41	-
PK	2.352G	56.02	74.00	-17.98	31.71	3	Vertical	269	1.41	-
PK	2.4396G	98.73	Inf	-Inf	32.04	3	Vertical	269	1.41	-
PK	2.4972G	56.32	74.00	-17.68	32.23	3	Vertical	269	1.41	-

Zigbee_Nss1_1TX

21/05/2019

2440MHz_TX

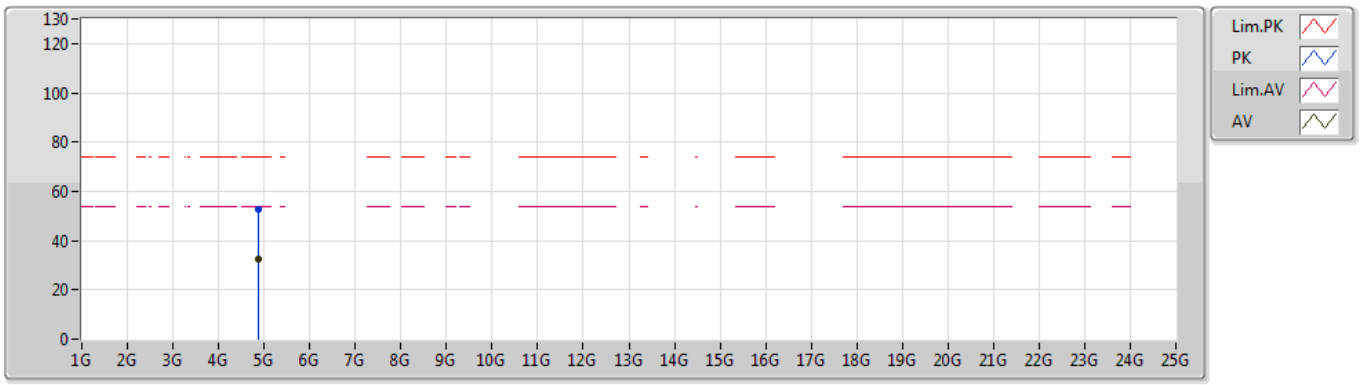


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.3564G	35.96	54.00	-18.04	31.74	3	Horizontal	309	2.97	-
AV	2.4396G	84.25	Inf	-Inf	32.04	3	Horizontal	309	2.97	-
AV	2.4868G	36.80	54.00	-17.20	32.20	3	Horizontal	309	2.97	-
PK	2.3564G	55.96	74.00	-18.04	31.74	3	Horizontal	309	2.97	-
PK	2.4396G	104.25	Inf	-Inf	32.04	3	Horizontal	309	2.97	-
PK	2.4868G	56.80	74.00	-17.20	32.20	3	Horizontal	309	2.97	-

Zigbee_Nss1_1TX

21/05/2019

2440MHz_TX

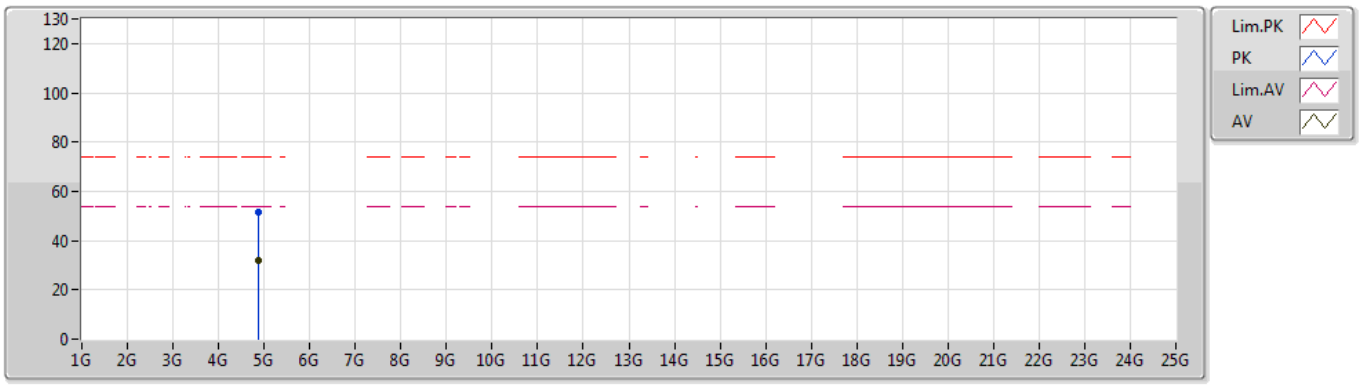


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.87967G	32.74	54.00	-21.26	3.62	3	Vertical	341	1.22	-
PK	4.87967G	52.74	74.00	-21.26	3.62	3	Vertical	341	1.22	-

Zigbee_Nss1_1TX

2440MHz_TX

21/05/2019

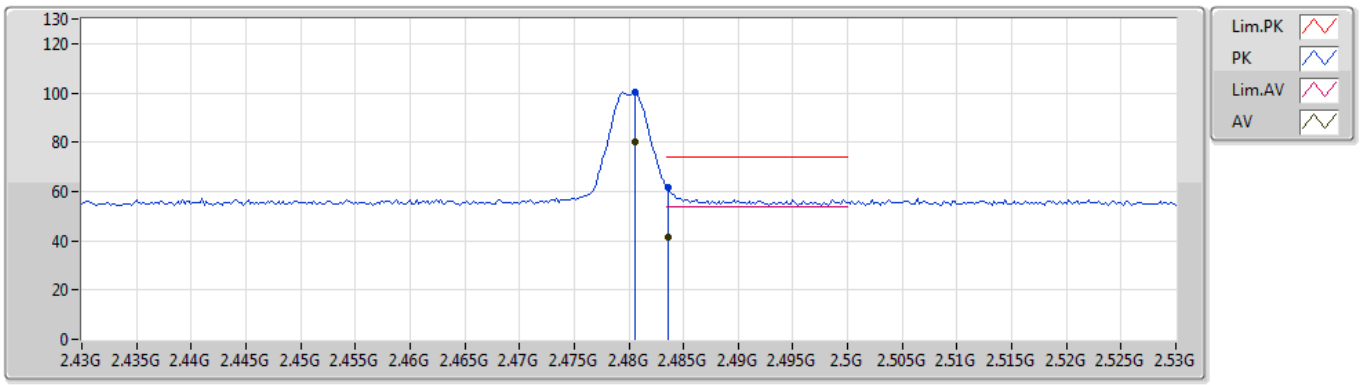


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.8779G	31.75	54.00	-22.25	3.62	3	Horizontal	175	1.63	-
PK	4.8779G	51.75	74.00	-22.25	3.62	3	Horizontal	175	1.63	-

Zigbee_Nss1_1TX

21/05/2019

2480MHz_TX

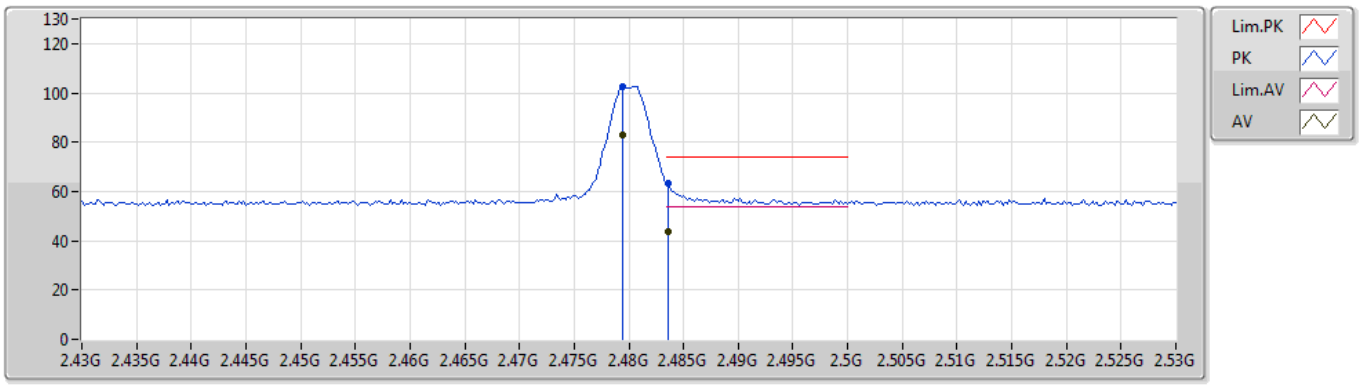


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4806G	80.05	Inf	-Inf	32.17	3	Vertical	270	1.01	-
AV	2.4836G	41.38	54.00	-12.62	32.19	3	Vertical	270	1.01	-
PK	2.4806G	100.05	Inf	-Inf	32.17	3	Vertical	270	1.01	-
PK	2.4836G	61.38	74.00	-12.62	32.19	3	Vertical	270	1.01	-

Zigbee_Nss1_1TX

21/05/2019

2480MHz_TX

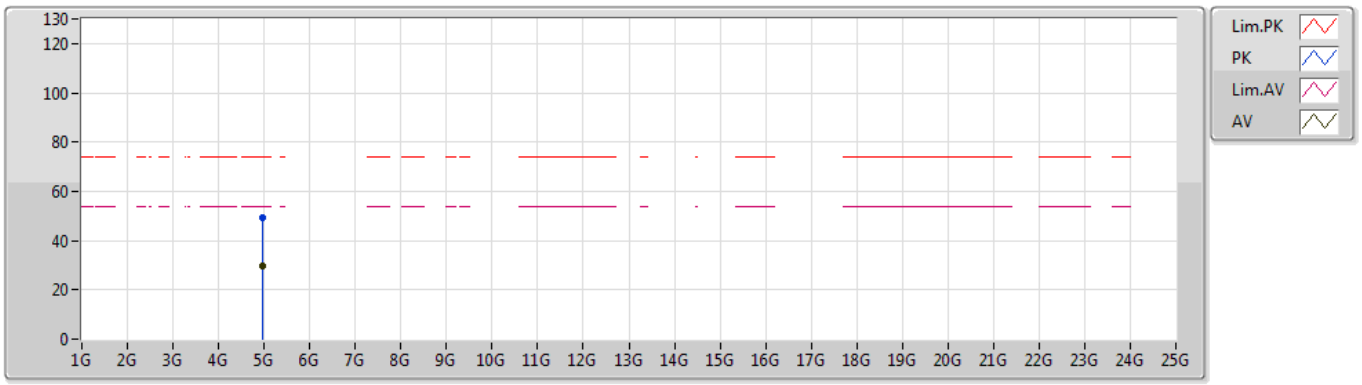


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	2.4794G	82.82	Inf	-Inf	32.17	3	Horizontal	312	2.86	-
AV	2.4836G	43.51	54.00	-10.49	32.19	3	Horizontal	312	2.86	-
PK	2.4794G	102.82	Inf	-Inf	32.17	3	Horizontal	312	2.86	-
PK	2.4836G	63.51	74.00	-10.49	32.19	3	Horizontal	312	2.86	-

Zigbee_Nss1_1TX

21/05/2019

2480MHz_TX

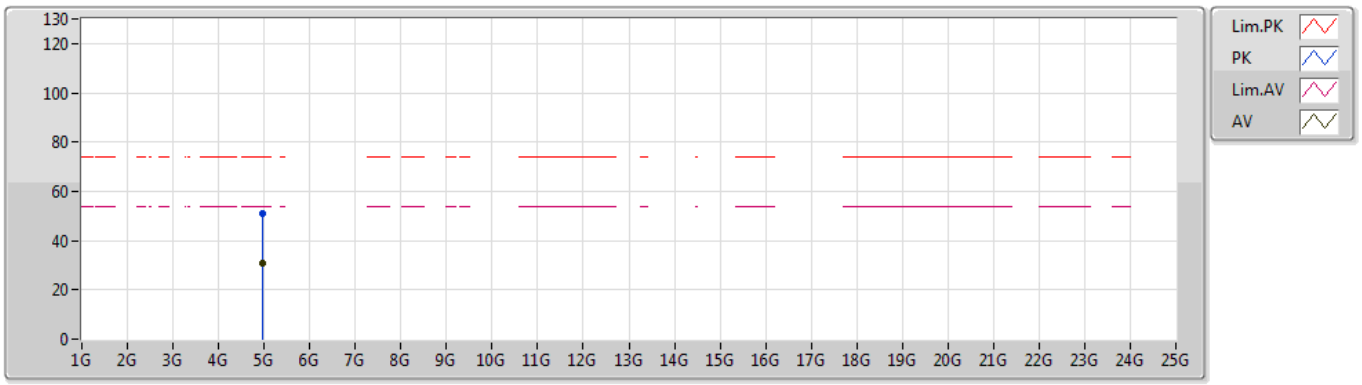


Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.95882G	29.47	54.00	-24.53	3.82	3	Vertical	62	2.54	-
PK	4.95882G	49.47	74.00	-24.53	3.82	3	Vertical	62	2.54	-

Zigbee_Nss1_1TX

21/05/2019

2480MHz_TX



Type	Freq	Level	Limit	Margin	Factor	Dist	Condition	Azimuth	Height	Comment
	(Hz)	(dBuV/m)	(dBuV/m)	(dB)	(dB)	(m)		(°)	(m)	
AV	4.96091G	30.85	54.00	-23.15	3.83	3	Horizontal	294	2.63	-
PK	4.96091G	50.85	74.00	-23.15	3.83	3	Horizontal	294	2.63	-